# TANK TALK

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PUBLISHED AS AN INFORMATIONAL SERVICE TO OWNERS AND PROSPECTIVE OWNERS OF STEEL WATER STORAGE TANKS BY TANK INDUSTRY CONSULTANTS, 5010 WEST FIFTEENTH STREET, SPEEDWAY, INDIANA 46224, E. CRONE KNOY, PE


## EDITOR'S CORNER

Well, I missed my editor's deadline by two months, but he said it is O.K. since this is our busy season.

The response to Number 1 TANK TALK last October was heartwarming. People seemed to appreciate the effort and asked for more.

So, here it is--Number 2 of TANK TALK. I'm going to keep sending them until you tell me to stop. With our new word processor-computer we hope to get them out more regularly.

## IN MEMORY

Our special prayers and concerns go out to the family and friends of Jack Knauss, who was "Mr. Water Tank USA" due to his long association with Wallace & Tiernan's Electro Rust-Proofing. Jack passed away in Miami Beach on May 15, 1982 while there for the National AWWA Conference. He was one of those irreplaceable individuals, warming all those he touched during his active life.

## WINTER KILL?

Our poor shrubs had a rough time last winter. . . a lot of vegetation loss due to "Winter Kill."

A lot of water tanks suffered from the extreme temperature differentials of the winter too. This caused exterior paint coatings to pop off in the matter of a day or so.

We are gathering information concerning this phenomenon. If you had this problem and care to share the information concerning it, mail as much information as you can to us. We are interested in knowing the location, date, type of tank, type and thickness of paint, surfaces affected by the failure, when last painted, - any information you might know - no matter how little or much. Maybe we can help solve this mystery.

## PLAN AHEAD

Above the Mason-Dixon line, we have to plan ahead in order to paint and repair tanks during good weather. Most paint systems - particularly the longer lasting epoxy ones - require temperatures above 60°F for proper application and curing. To achieve this painting schedule, it is recommended that the following sequence be followed:

1. During the spring, summer, or fall of the year prior to that in which you think the painting is to be done, have your tank inspected to determine what has to be done and to establish your budget.

2. That fall and early winter, prepare the specifications for the work.

3. Take your bids during the winter months of December, January, and February. It is during these months that the better painters get their work schedule filled in for the following summer. By spring they are out on the job again and not really worried about bidding that competitively.

4. By receiving the bids in the winter, the contracts are awarded and all documents signed in plenty of time before the painting season is in full swing.

There is a noticeable trend that bids taken in May or later for work to be done that year may be merely "complimentary" or reflect the hardship of working it in to the already established schedule.

Wanting your work done "before Memorial Day" or "after Labor Day" for ease in operating your water system usually hits the painters when they are the busiest, their productivity is the lowest, and the temperature and humidity conditions are not ideal for sandblasting and painting.

You in the "Sun Belt" have fewer limitations on the schedule. You can modify the above schedule by six months and maybe get a winter bargain.

# THERE IS SANDBLASTING, AND THERE IS SANDBLASTING

"Oh, yes! They sandblasted our tank before they painted it."

Sandblasting is an often misunderstood term. On steel tank work, the standard may be anything from an SSPC 7 "Brush Off Blast Cleaning" to an SSPC 5 "White Metal Blast Cleaning."

SSPC stands for Steel Structures Painting Council--a non-profit organization which has been responsible for developing and promulgating standards for cleaning and painting steel materials.

What makes it confusing is that the numbers assigned to these standards do not proceed in the same sequence as the degree of cleanliness of the steel.

A summary of the types of cleaning which may be specified on tanks follows: (They are placed in the order of cleanliness normally obtained.)

SSPC-SP2 HAND TOOL CLEANING
The removal of loose rust and mill scale by hand wire brushing, scraping, chipping or sanding. Hand Tool Cleaning will not remove all rust residue or intact, firmly adhering, mill scale.

SSPC-SP3 POWER TOOL CLEANING
The removal of loose rust and mill scale by mechanical means such as power sanders, wire brushes, chipping hammers, abrasive grinding wheels or needle guns. Power Tool Cleaning provides a slightly higher degree of cleanliness than Hand Tool Cleaning, but is not regarded as adequate surface preparation for long-term exterior exposure of most high performance coating systems.

SSPC-SP7 BRUSH-OFF BLAST CLEANING
The removal of loose rust, mill scale, paint and foreign matter from the surface by compressed air nozzle blasting, centrifugal wheels or other specified methods.

SSPC-SP6 COMMERCIAL BLAST CLEANING
The removal of at least two-thirds of all visible rust, mill scale, paint and other foreign matter from each square inch of surface by compressed air nozzle blasting, centrifugal wheels or other specified method.

SSPG-SP10 NEAR-WHITE METAL BLAST CLEANING
The removal of 95% of all visible rust, mill scale, paint and other foreign material from each square inch of surface by compressed air nozzle blasting, centrifugal wheels or other specified method.

SSPC-SP5 WHITE METAL BLAST CLEANING
The complete removal of all visible rust, mill scale, paint and foreign matter by compressed air nozzle blasting, centrifugal wheels or other specified method, leaving an overall, uniformly gray-white metallic appearance.

Some common misconceptions are:

1. That an SSPC-SP6 Commercial Blast Cleaning specification means that only 2/3 of the tank need be sandblasted. Wrong! Two thirds of each square inch must be free of foreign material. Basically, SSPC-SP6 allows for more discoloration than a SSPC-SP10.

2. That an SSPC-SP7 Brush-Off Blast Clean is a definitive specification. No! The specification says removal of "loose rust, mill scale, paint, and foreign material. The definition "loose" is very loose itself. One should define to what layer of paint or what degree of tightness is allowed on the removing materials.

3. Hand cleaning is cheaper. Not if you expect the same degree of cleanliness. It takes a lot of hours with a scraper or brush to clean what can be done in minutes with a sandblaster.

4. If the steel is ground to remove all materials this is as good as sandblasting. Wrong again! Another purpose of sandblasting is to provide the surface with a profile to give an anchor pattern for the coating. Grinding does not provide this anchor pattern.

5. Sandblasting is the answer to all my paint problems. Well, it is a good start, BUT in cases of "dead" exterior coatings, the interface between the spot blasted surface and the old paint may yield delaminating "fish scaling" problems which are solvable only with hand scraping at this interface.

Confused? Hopefully less so now than before.